



Monthly Drought Update April 21, 2015 San Luis Obispo County

Note: Information provided in this update varies by date.

CURRENT CONDITIONS

U.S. Drought Monitor Status:

The latest U.S. Drought Monitor report released April 9, 2015, indicates San Luis Obispo County remains at the **D4 – Exceptional Drought intensity rating**. Approximately 93% of the state remains at a level D2 – Severe Drought or worse with 44% of the state in a D4 – Exceptional Drought intensity rating. Continued dryness resulted in an expansion of Exceptional Drought (D4) in northwest California.

San Luis Obispo County Precipitation Totals (in inches):

Sub-Region	Area / Rain Station	Average Annual Rainfall	2014-15 Water Year (July 2014-June 2015)	
			Cumulative Total	% of Total Average
North Coast	Cambria (ALERT #717)	22.0	11.42 *	52% *
	Whale Rock Reservoir (County Site #166.1)	16.0	6.73	42%
Inland	Paso Robles (County Site #10.0)	14.1	9.09	64%
	NE Atascadero (ALERT #711)	17.0	6.46 *	38% *
	Atascadero MWC (County Site #34.0)	17.5	9.89	57%
	Santa Margarita (ALERT #723)	24.0	9.57	40%
	Salinas Dam (County Site #94)	20.9	9.74	47%
South Coast	SLO Reservoir (ALERT #749)	24.0	9.33	39%
	Lopez Recreation Area (ALERT #707)	23.0	6.00 *	26% *
	West of Nipomo (CIMIS #202)	14.8	5.19 *	35% *
	Nipomo East (ALERT #728)	18.0	8.03	45%

Notes: This table contains provisional data from automated gauges and has not been verified. All units reported in inches. Report generated at 11:00am on 4/3/2015.

* Due to an equipment malfunction, not all rain was recorded at this site.

Near-term Outlook for Precipitation:

The National Weather Service's Climate Prediction Center has issued an El Niño Advisory for a 50-60% chance of a weak strength event through summer. Due to the expected weak strength, widespread or significant impacts are not anticipated. The U.S. Seasonal Drought Outlook is calling for the drought to persist or intensify throughout California.

Reservoir Levels (% of capacity):

Note: Historical averages calculated using data from the following time frame:

Nacimiento: 1959 – 2013; Lopez: 1994-2013; Salinas: 1987-2013; and Whale Rock: 1985-2013.

Reservoir	% of Capacity	Current Acre Feet Storage
Nacimiento	29%	108,275
Whale Rock	43%	16,873
Lopez	39%	19,293
Salinas	17%	4,021

Source: www.slocountywater.org County of San Luis Obispo

STATE WATER

Status: The Department of Water Resources (DWR) announced expected water deliveries in 2015 to most customers of the State Water Project (SWP) to 20% of their requested amounts. San Luis Reservoir is currently at 68% capacity.

Actions: The Public Works Department has released a 2015 projected delivery schedule and met with sub-contractors to discuss 2015 projected deliveries. Staff has distributed information to subcontractors showing the 20% delivery scenario and will continue to coordinate with sub-contractors as more information arises.

VULNERABLE WATER SYSTEMS**County Service Areas (CSA's):****Santa Margarita (CSA 23)**

- Drought response level remains at ALERT status.
- Primary pumping is from shallow well No. 4; water is also being pumped from deep well No. 3 to reduce needs from well No. 4. State officials have also authorized the use of shallow wells 1 & 2 should the need arise.
- An emergency ordinance was adopted limiting outdoor watering. An informational mailer was sent to customers and signs in the community have been installed.
- Staff is monitoring conditions for a potential status change to CRITICAL.

Shandon (CSA 16)

- Two wells currently provide all water to the Shandon community and continued to be monitored.
- Work to make the connection to State Water is progressing through the required reviews by the State and the Central Coast Water Authority.
- An emergency ordinance was adopted limiting outdoor watering. An informational mailer was sent to customers and signs in the community have been installed.

Cayucos (CSA 10A)

- Supply is available from Whale Rock and one on-site well. Staff has given a presentation to the Advisory Committee and business groups regarding conserving this supply.
- An emergency ordinance was adopted limiting outdoor watering. An informational mailer was sent to customers and signs in the community have been installed.

Avila Valley (CSA 12)

- Adequate supply is available from Lopez and State water "carryover" water sources for this year and next.

Chorro Valley Institutions (CMC, Animal Services, Sheriff, County Operations, Camp San Luis, Cuesta College, County Office of Education):

- 2015 State water carryover water is available and being provided.
- The existing distribution system is being evaluated to assure water losses are minimized.
- CMC is at 100% design of their water treatment plant upgrade project and will soon go out to bid.
- Discussions with City of SLO to exchange Nacimiento for Whale Rock are being initiated if State Water is insufficient in 2016.

Non-County Operated:

- **Cambria Community Services District**

Status: Emergency San Simeon Creek Brackish Water Supply Project went online on January 20, 2015. The district is now seeking a permit to operate it permanently.

- **San Simeon Community Services District**
Status: CSD voluntarily dropped out of emergency grant project for recycled water project.
- **Heritage Ranch Community Services District**
Status: The Nacimiento River is the only available water source for the community of Heritage Ranch. An emergency inter-tie will be funded with emergency grant funds.
- **Rural Paso Robles residents**
Status: Continuing to identify water-trucking options and examine outreach efforts. See County Drought Conditions and Water Conservation Website for drought relief update information.

IMPACTS

Agricultural Impacts:

Crop statistics for preparation of the Agricultural Commissioner's 2014 Annual Crop Report have been compiled and analyzed. Several survey methods were used to ask hundreds of agricultural producers for data concerning acreage in production, yields and production data, trends and challenges they faced in 2014. Subject matter experts, including Farm Advisors from the University of California Cooperative Extension Service were also consulted for help in analyzing the data. The 2014 Annual Report will be released in summer, 2015. Annual Reports from 1928 through 2013 can be viewed at www.slocounty.ca.gov/agcomm.

The overall value for 2014 for all agricultural sectors was \$902,991,000, a decrease of nearly 2% compared to 2013 revised figures. This decrease reflects the negative impacts and challenges producers faced in 2014 due to the severe, ongoing drought. The following is a summary of the data and trends that were reported.

Animal Industry

In response to the third consecutive year of drought conditions, cattle sales peaked to record numbers and prices. The continued drought forced cattle ranchers to make difficult decisions about what to keep or what to sell from their already depleted remaining herds. Strong prices and a record number of cattle and calves sold brought the total value to \$129 million, an increase of 34% compared to 2013. The total production for the animal sector was valued over \$135 million, a 34% increase from 2013.

Field Crops

Drought conditions in 2014 resulted in 6,000 fewer acres of field crops planted compared to 2013. Coastal plantings produced well but crops yields got progressively lower towards the eastern portions of the county. Prices for alfalfa and barley were strong leading to a 3% increase in value of field crops overall compared to 2013. Many producers diversified by selling hay by the bale directly to customers to meet the local demand for horses and supplemental feed for cattle.

Fruit and Nut Crops

The strawberry industry remained strong in 2014. Over 3,400 acres were harvested, an increase of 157.0 acres over 2013. Mild weather conditions and limited rainfall resulted in good production levels, low disease pressure and high quality fruit. The value reached over \$205 million.

The warm winter temperatures provided for a good start to the growing season for wine grapes. Early spring bud break resulted in an unusually early harvest. Overall, total production decreased 13% compared to record breaking yields of 2013. Yields for 2014 were closer to normal tonnage production. The lack of water and warmer growing conditions lead to smaller fruit clusters but extremely high quality fruit. The value for all varieties combined is over \$203 million, a decrease of 8% over 2013.

Demand for lemons was high in 2014 due to shortages around the state, resulting in strong prices and an increased value of 27% over 2013. Valencia orange production increased 18% and prices were strong resulting in a 47% increase in value over 2013.

The most dramatic sign of the drought effects in 2014 was the severely pruned and stumped avocado trees throughout the county. Growers were forced to take this drastic action to reduce the leaf canopy to save the tree in response to reduced or no irrigation. Salt build up in the soil from lack of leaching rains also took its toll on trees. Total production yields for avocados decreased by 50% over 2013. It will take several years for avocado trees to return to normal production levels once drought conditions improve.

For severely damaged trees, growers may be faced with replanting entire orchards or shifting to different crops.

Vegetable Crops

Fairly mild winter temperatures in 2014 had a favorable effect on several vegetable crops such as head lettuce and cauliflower. However, crop damage due to increased soil salinity from the third consecutive year of drought was widely reported. Broccoli, cauliflower and cabbage growers also suffered significant yield losses from the Bagrada Bug, (*Bagrada hilaris*), commonly called the painted stink bug. Native to Africa, this highly destructive pest arrived in California in 2008 and has since grown to population levels that cannot be eradicated. Growers also experienced labor shortages of harvesters. Overall, the value for all vegetables combined was over \$195 million, a decrease of 18% compared to 2013.

Nursery Products

Nursery stock producers were challenged by the uncertainty retailers faced predicting customer demand in light of voluntary or mandated water conservation measures related to the drought. As a result of this market uncertainty and the shift to production of drought tolerant plants, the nursery industry experienced a transitional phase in 2014. This led to an overall decline in value of 14% compared to 2013. The demand for vegetable transplants remained relatively stable with more acres planted and a 2% increase in value compared to 2013.

Agricultural Assistance

Staff at the USDA Farm Service Agency is now accepting applications for an additional Livestock Forage Disaster Program for 2015. This program is available to qualified livestock producers that own or lease land that had grazing losses due to the current drought. In addition, ranchers should file now for the Non-Insured Assistance Program (NAP) if they purchased the insurance through the USDA Farm Service Agency office for 2015.

For information about the assistance programs, contact the USDA Farm Service Agency at 805- 434-0398.

Fire Danger:

Fire Danger

In 2014, CAL FIRE responded to 1,000 more fires compared to the 5-year average across the State. In 2015, CAL FIRE has responded to more than 70 wildfires including the massive 7,000 acre Round Fire that destroyed 40 residences in February. These statistics do not include fires on Federal jurisdiction. Current fire information indicates there are currently no uncontained State fires.

In San Luis Obispo County in 2014, CAL FIRE responded to 130 wildfires, which burned 124 acres. In March, no wildfires were reported. Since 2007, the average for March is 7 wildfires burning 3 acres.

Figure 5 to the right indicates above normal fire potential in the county for the next four months.

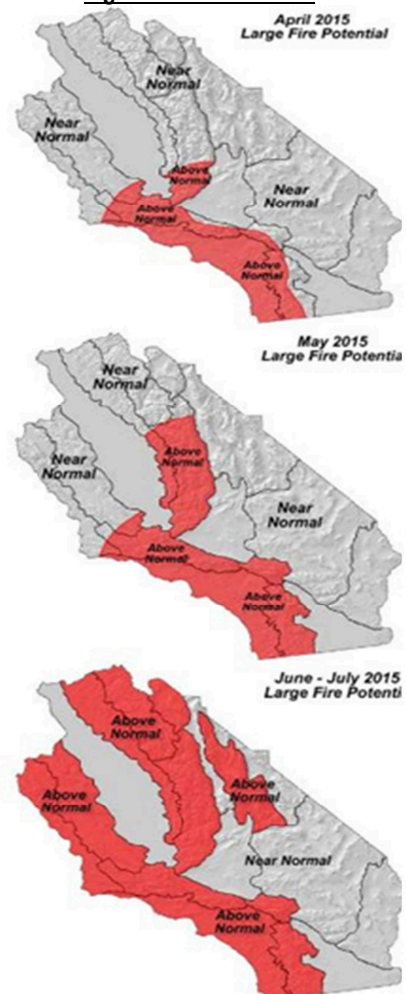
Equipment/Staffing:

Locally, CAL FIRE remains at winter preparedness staffing levels with two additional wildland engines remained staffed and available for State mission activities including vegetation management and other fire prevention work. The open burn season continues which means no CAL FIRE burn permit is required and agricultural and backyard burning can be conducted with only an APCD burn permit.

Live Fuel Moisture (LFM)

(LFM is the moisture content of live vegetation expressed as a percentage of the oven-dry weight.)

Figure 1: Fire Potential



Attachment 1

LFM values in the County have peaked earlier than usual and are trending downward with values at below average at most stations.

Overall, frequent dry weather patterns and the presence of low live and dead fuel moistures has produced fuel conditions that are considered available for burning. The green grass is rapidly dessicating and turning yellow except on moist north slopes.

Dead Fuel Moisture

(The moisture content of dead organic fuels is another important component of the relative fire danger. As with LFM above, dead fuel moisture levels are a good indicator of how likely fuels are to ignite and how intensely they will burn. 100-hr fuel refers to vegetation between 1 and 3 inches in diameter and 1000-hr fuel is 3-6 inches. When the fuel moisture content is low, fires start easily and will spread rapidly.)

Due to the dry weather in March, dead fuel moisture values declined throughout the month and are at historic lows. Many fuel beds in the County, particularly coastal sage scrub, have seen a dramatic increase in the percentage of dead fuel. In many areas, the volume of dead vegetation exceeds the volume of live vegetation.

Temperatures/Relative Humidity (RH)

(When combined with other factors influencing the fire environment such as wind, steep topography, and low fuel moisture levels, hot temperatures and low RH can significantly increase the fire danger by increasing fire initiation, spread rates, burning intensity, and difficulty of control.)

Longer days and warm and dry weather has steadily increase the fire danger and moved up the start of the 2015 fire season, which is now set for April 13, 2015.

Energy Release Component (ERC)

(ERC is an index related to how hot a fire could burn. It is directly related to the 24-hour, potential worst case, total available energy (BTUs) at the head of a fire. The ERC can serve as a good characterization of fire season as it tracks seasonal fire danger trends well. ERC has low variability, and is the best fire danger component for indicating the effects of intermediate to long-term drying on fire behavior.)

The recent dry weather has decreased the dead fuel moistures and increased ERC values to record high levels, increasing relative fire danger.

Figure 1:
Drought impact on the Cambria Monterey Pine Forest (CMPF)



Forest and Range Impacts:

Widespread tree mortality is plainly evident throughout the County (see Figure 1). Thousands of coast live oaks of all sizes in all areas and at all elevations have died.

The area most severely impacted is the Cambria Monterey Pine Forest (CMPF). Already one of the most endangered native forests in the world, the CMPF has been further devastated by the drought. The poor condition of the CMPF resulting from the decades-long problems including

senescence, over-crowding, fire exclusion, pitch canker, bark beetles, and many other fungal and parasitic pathogens has been severely amplified by the drought. These cumulative impacts have created the current situation where approximately 40-50% of the overstory trees are dead or dying. In certain areas, mortality exceeds 90%. In addition to the major impacts to forest health, the resulting fire hazard has increased to the point where catastrophic stand-replacing fire is very likely. Hundreds of large dead hazard trees are poised to fall on homes, vehicles, and vital infrastructure.

Solutions are available including dead tree removal, biomass removal, cogeneration, thinning, prescribed burning, tree planting, and invasive weed control. Implementing worthwhile solutions is extraordinarily challenging and will require a community based effort involving multi-agency cooperation. Efforts are currently underway to secure grant funding to begin this process.

Economic:

In an effort to coordinate local and state response to drought impacts the following surveys are being utilized by the County:

Drought Business Impact Survey

The San Luis Obispo County Workforce Investment Board (WIB) is gathering information on local drought-related job impacts. This is part of a statewide survey by the California Labor and Workforce Development Agency (LWDA) as part of an ongoing online survey to inform the Governor's Drought Relief Task Force of the drought's ripple effects. The WIB's Drought Business Impact survey is available at <http://sloworkforce.com/drought-survey/>. Local Workforce Investment Boards, workforce partners, and other local workforce entities are encouraged to complete the survey regularly to keep the Governor's Drought Relief Task Force up to date on the local area. The WIB is conducting outreach to chambers of commerce and other business services agencies for assistance in outreach to businesses and employers regarding the drought survey. Though the WIB is hearing that there are impacts, the county does not have any "reportable" impacts due to the State's requirements for reporting (i.e. specific business name, address, etc.).

Domestic Water Issues-Intake Form

The Governor's Drought Task Force created an online intake form for local, state, or tribal and federal agencies to document domestic water issues. The information is intended to inform and coordinate state response and mitigate drought impacts. Data collected is considered confidential and access is restricted. Individuals with domestic water issues are encouraged to contact County Environmental Health at (805) 781-5544.

Anonymous Supplemental Domestic Water Issues Online Survey

The County Drought Task Force created a supplemental anonymous survey. The survey does not ask for any identifying information and is intended to support our request for federal disaster assistance for individuals. Individuals who wish to remain anonymous are encouraged to complete the supplemental survey online www.slocounty.ca.gov/admin/Drought_Update or by phone by calling (805) 781-5011.

To date, the County has received 91 responses to the supplemental survey. Of the 91 respondents, 29 (35%) report that one or more wells have gone dry, 12 (14%) are trucking in water, and 66 (79%) have heard of other wells running dry in their area. It is important to note that the survey is voluntary and as a result, responses are not representative of the county population.

STATE & FEDERAL KEY ACTION ITEMS FROM LAST MONTH

Governor Brown Directs First Ever Statewide Mandatory Water Reductions

For the first time in state history, the Governor has directed the State Water Resources Control Board to implement mandatory water reductions in cities and towns across California to reduce water usage by 25 percent. The Governor's order calls on local water agencies to adjust their rate structures to implement conservation pricing, recognized as an effective way to realize water reductions and discourage water waste. The full text of the executive order can be found at the following link:

http://gov.ca.gov/docs/4.1.15_Executive_Order.pdf.

Energy Commission Approves Water Appliance Standards

On April 8, the California Energy Commission approved standards for water appliances which will save more than 10 billion gallons of water in the first year. The energy efficiency and water standards approved require water appliances to consume less water thereby using less energy while performing the same function. The details for each appliance are as follows:

- Toilets and urinals, except those designed for prisons or mental health facilities. Toilets shall not consume more than 1.28 gallons per flush and shall have a waste extraction score of no fewer than 350 grams. Urinals shall not consume more than 0.125 gallons per flush. (These facilities have specially-designed toilets and urinals to address security and health issues.)
- Residential lavatory faucets shall not exceed 1.2 gallons per minute flow rate.
- Kitchen faucets shall not exceed 1.8 gallons per minute flow rate and may have capability to increase to 2.2 gallons per minute momentarily for filling pots and pans.
- Public lavatory faucets shall not exceed 0.5 gallon per minute flow rate.

Urban Water Conservation Plummets in February

The State Water Resources Control Board (State Water Board) announced that Californians in cities and towns reduced their water consumption by just 2.8 percent in February. This conservation rate is the lowest monthly figure since the State Water Board began tracking the data in July 2014.

COUNTY DROUGHT TASK FORCE KEY ACTION ITEMS FROM LAST MONTH

County Office of Emergency Services:

San Luis Obispo County OES continues to coordinate with the Governor's Office of Emergency Services (Cal OES) to provide updates on the drought situation, respond to specific information requests to Cal OES, and coordinate local emergency needs. In addition, County OES continues to gather local situation status information and drought costs throughout the county in order to send the information to Cal OES.

Additionally, information specific to the Cambria fire threat has been provided to Cal OES and has been shared with the State Drought Task Force. The status of the Cambria fire threat has and will continue to be well a high priority issue shared with state agencies.

Emergency Actions:

No new emergency actions have been taken specific to the drought in this reporting period.

County Facilities Usage & Conservation Actions:

The county has taken the following actions:

- Fixture Replacement: To date, staff has retrofitted 44 buildings with low-flow fixtures, saving an estimated 4,500 gallons per week.
- Water Conservation/Leak Repair: Staff continues to identify and repair leaks to minimize water loss.
- Energy and Water Manager Professional Services Contract: The Energy & Water Manager Services consultant contractor provided a summary of water billing data and showing high use facilities and developed a GIS map showing metering locations at County Operations Center and corresponding usage. The next step will be to perform a water audit of high use facilities.
- County Parks: Staff has continued to minimize watering on landscape and sports fields.

Drought Contingency Planning:

The Public Health Department, the Public Works Department, and CAL FIRE/County Fire continue to develop plans to ensure there is adequate supply of water for firefighting and domestic water use in the event that a community does not have enough water. Water availability information from small and large public water systems has been categorized into three categories; Watch, Vulnerable, and Critical. The information has been placed into a GIS mapping layer for contingency planning.

County Public Outreach Actions:

Information regarding current and upcoming drought relief programs for rural homeowners has been placed on the County Drought Conditions and Water Conservation webpage. Rural Development, an agency of the United States Department of Agriculture (USDA), delivers a number of programs to help improve the quality of life in rural communities throughout the nation. These programs may also help rural communities, businesses and individuals impacted by California's ongoing drought conditions. For additional resources and information on applying for any of these programs, please visit <http://www.rurdev.usda.gov/ca> or the County Drought Conditions and Water Conservation webpage at http://www.slocounty.ca.gov/admin/Drought_Update.htm.

In an effort to raise awareness about water supply issues and communicate the call for a 20% voluntary reduction in water usage, the County continues to examine multiple channels of communication for water conservation outreach efforts. Check out our water-saving tips, shareable water saving images, and customized Tweets and Facebook posts just for you to share and help us continue the SLO County culture of conservation at the following link: http://www.slocounty.ca.gov/admin/Drought_Update/water-conservation.htm

DROUGHT RELATED WEBSITES FOR MORE INFORMATION

County of San Luis Obispo Drought Conditions and Water Conservation
(http://www.slocounty.ca.gov/admin/Drought_Update.htm)

State's Water Conservation Campaign; Save our Water
(www.saveourh2o.org)

California's Drought Information Clearinghouse; Drought.CA.Gov
(<http://ca.gov/drought/>)

California Department of Food and Agriculture; Drought information
(www.cdfa.ca.gov/drought/)

California Department of Water Resources; Current Water Conditions
(www.water.ca.gov/waterconditions/drought/)

California State Water Resources Control Board; Water Rights, Drought Info and Actions
(www.swrcb.ca.gov/waterrights/water_issues/programs/drought/index.shtml)

California Department of Public Health; Drinking Water CDPH Drinking Water Program
(www.cdph.ca.gov/programs/pages/dwp.aspx)

USDA Disaster and Drought Assistance Information; USDA Programs
(http://www.usda.gov/wps/portal/usda/usdahome?navid=DISASTER_ASSISTANCE)

UC Cooperative Extension Drought Information Resources; Drought Information Resources
(http://cesanluisobispo.ucanr.edu/Drought_Information/)

